

# STATE

## INDUSTRIES OF THE FUTURE



### SUCCESS STORY

#### WISCONSIN

##### SEP SPECIAL PROJECTS GRANTS

FY 1999 - \$200,000

FY 2000 - \$152,874

FY 2001 - \$200,000

##### FOCUS INDUSTRIES

Agriculture

Food Processing

Forest Products

Glass

Metal Casting

Plastics and Chemicals

Printing

Water & Wastewater  
Systems

##### PARTICIPATING ORGANIZATIONS

Wisconsin Department of  
Administration

Energy Center of Wisconsin

Milwaukee School of  
Engineering

Science Applications  
International Corporation

Franklin Energy Services

GDS Associates

University of Wisconsin,  
U.S.D.A.

Forest Products Research  
Laboratory

University of Wisconsin,  
Industrial Assessment  
Center

Wisconsin Paper Council

Lake States TAPPI

Wisconsin Cast Metals  
Association

Wisconsin Biotechnology  
Association

Wisconsin Department of  
Commerce

Wisconsin Department of  
Natural Resources

#### IMPLEMENTING INDUSTRIES OF THE FUTURE IN WISCONSIN

The Office of Energy Efficiency and Renewable Energy's Industrial Technologies program is working with partners from the State of Wisconsin to expand the Wisconsin Industries of the Future (WI IOF). The IOF is managed by the Wisconsin Focus on Energy program. This program is a public/private partnership of state government, non-profit organizations, for-profit firms, and academia.

The initiative is considered a success because it has effectively brought together members of industry, the state, and academia to promote industrial energy efficiency, reduce waste, and increase productivity. In addition, industries involved with the IOF have access to, and knowledge of, valuable tools and information sources. Finally, the model developed through the state's metal casting IOF has led to IOF activities in seven additional industries, several of which have not been addressed at the national level.

#### INDUSTRIES OF THE FUTURE IN WISCONSIN

INDUSTRIES	EMPLOYEES	WAGES (\$1,000)	VALUE OF SHIPMENTS (\$1,000)
AGRICULTURE	134,707	979,248	6,384,856
ALUMINUM	N/A	N/A	N/A
CHEMICAL	14,900	752,226	5,598,000
FOREST PRODUCTS	69,570	2,588,402	17,455,078
GLASS	3,345	109,490	633,010
METAL CASTING	23,292	863,680	3,377,971
MINING	2,975	109,956	334,600
PETROLEUM	100	N/A	N/A
STEEL	1,649	63,124	389,359

## STRATEGY

Goals of the WI IOF are 1) to identify and build collaboratives among Wisconsin IOF industries and universities, state and federal government agencies, trade associations, and other non-governmental organizations, 2) create Wisconsin-specific IOF roadmaps for each sector by tailoring existing national roadmaps when possible, 3) organize teams to implement key action items from roadmaps, 4) implement key action items in the roadmaps via Wisconsin Focus on Energy or other funding and facilitation methods, and 5) accelerate the technology transfer process for Wisconsin IOFs to help them improve productivity, remain competitive nationally, and reduce energy intensity and environmental footprints.

Following are actions that participants are taking to achieve goals:

- Partners have participated in facilitated roundtables for metal casting, pulp and paper, and agriculture. These workshops are used to construct state-specific roadmaps.
- The WI IOF has completed roadmaps for the metal casting and pulp and paper industries.
- Industry associations including the Wisconsin Paper Council, Wisconsin Cast Metals Associations, and others have assisted with outreach activities and have made referrals for innovative industry project opportunities.
- The Wisconsin Cast Metals Association sent out a metal casting benchmarking survey form to collect energy usage information from its members. It received responses from 31 metal casters.
- The Wisconsin Paper Council, Wisconsin Cast Metals Association, and the Wisconsin Biotechnology Center co-signed a Memorandum of Understanding (MOU) between Wisconsin and DOE.

## PROJECTS/ACHIEVEMENTS

- Signing of MOU by Governor McCallum and DOE in October 2001 at the 6th Governor's Roundtable.
- Built Metal Casting IOF and published a roadmap in November 2000.
- Completed a study of spent foundry sand co-processing for asphalt in 2001.
- Completed a production demonstration plan for aluminum-flyash composite part casting and recruited a part maker and part buyer to participate in the trial.
- Built Forest Products IOF and published a roadmap in December 2001.
- Built Agriculture IOF and held first roadmapping roundtable in March 2002.
- Conducted five Making Sense of Energy and Environmental Programs workshops.
- Updated Resource Guide for Wisconsin Industries (Consortium for Industrial Efficiency)
- Conducted metal casting energy benchmarking study in November 2001.
- Completed industry needs scoping roundtables for all WI IOF sectors.
- Constructing state-specific roadmaps for all sectors except metal casting and forest products.

## LEVERAGING OPPORTUNITIES

In addition to activities funded through Special Projects grants, a number of activities/funding/relationships have emerged as a result of the State IOF.

- Relationships among industry, state agencies, University of Wisconsin departments, and the U.S. DOE are much stronger due to IOF efforts.
- The Energy Center of Wisconsin provided cost-share funding of \$48,964 to the WI IOF.
- The state, through the Focus on Energy program, has budgeted just over \$2.3 million through June 30, 2002, to broaden the WI IOF to include glass, commercial printing, chemicals and plastics, and food processing, while expanding the SEP-initiated IOFs.
- The Focus on Energy program has committed \$300,000 for a Forest Products Technology Transfer Service Center. BioPulping International received the award through a competitive solicitation process.
- Successful results from the metal casting roundtables has encouraged the printing, plastics, water/wastewater, and food processing industries to organize their own roundtables, with funding through Focus on Energy.

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Energy Efficiency  
and Renewable Energy  
U.S. Department of Energy  
Washington, D.C. 20585

March 2002